

AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Currently amended) A method of alleviating or preventing the accumulation of ammonia in an aquarium comprising:

providing a bacterial strain that oxidizes ammonia to nitrite in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein said bacterial strain comprises a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:1; and

introducing into the aquarium ~~and maintaining an~~ the amount of the bacterial strain sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein hybridization to SEQ ID NO:1 occurs under the following stringent conditions: hybridization in 30% formamide, 0.9 M NaCl, 0.01% sodium dodecyl sulphate, 20 mM Tris/HCl pH 7.4 at 46 °C, and washing with 120 mM NaCl, 5 mM EDTA, 0.01% sodium dodecyl sulphate, and 20 mM Tris/HCl at 48 °C.

2. (Original) The method of claim 1, wherein ammonia is reduced by at least 30% when compared with a level of ammonia that would exist in the absence of the bacterial strain.

3. (Previously presented) The method of claim 1, wherein the aquarium is a saltwater aquarium.

4. (Previously presented) The method of claim 1, wherein the aquarium is a freshwater aquarium.

5. (Canceled)

6. (Previously presented) The method of claim 1, wherein introducing into the aquarium an amount of the bacterial strain further comprises placing the bacterial strain into the aquarium on a rotating biological contactor.

7. (Previously presented) The method of claim 1, wherein introducing into the aquarium an

amount of the bacterial strain further comprises placing the bacterial strain into the aquarium on a biofilter.

8-15. (Canceled)

16. (Currently amended) A method of alleviating or preventing the accumulation of ammonia in an aquarium comprising:

providing a bacterial strain that oxidizes ammonia to nitrite in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein said bacterial strain comprises the 16S rDNA nucleotide sequence set forth in SEQ ID NO:1; and

introducing into the aquarium ~~and maintaining an~~ the amount of the bacterial strain sufficient to alleviate or prevent the accumulation of ammonia in the aquarium.

17. (Canceled)

18. (Currently amended) A bioremediation process that alleviates or prevents the accumulation of ammonia in an aquarium comprising:

providing a bacterial strain that oxidizes ammonia to nitrite in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein said bacterial strain comprises a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:1; and

introducing into ~~and maintaining in~~ the aquarium ~~an~~ the amount of the bacterial strain sufficient to remediate the aquarium, wherein hybridization to SEQ ID NO:1 occurs under the following stringent conditions: hybridization in 30% formamide, 0.9 M NaCl, 0.01% sodium dodecyl sulphate, 20 mM Tris/HCl pH 7.4 at 46 °C, and washing with 120 mM NaCl, 5 mM EDTA, 0.01% sodium dodecyl sulphate, and 20 mM Tris/HCl at 48 °C.

19. (Canceled)

20. (Currently amended) A method of alleviating or preventing the accumulation of ammonia in an aquarium comprising:

providing a composition comprising a bacterial strain that oxidizes ammonia to nitrite including the nucleotide sequence as set forth in SEQ ID NO:1 and at least one other bacterial strain that oxidizes ammonia to nitrite in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein the at least one other bacterial strain has 16S

rDNA including a nucleotide sequence independently selected from the group consisting of: a nucleotide sequence that has greater than 98% identity over the full length thereof to SEQ ID NO:3, a nucleotide sequence that has greater than 98% identity over the full length thereof to SEQ ID NO:4, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:2, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:18, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:19 and a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:20; and

introducing into ~~and maintaining in~~ the aquarium ~~an~~ the amount of the composition sufficient to alleviate or prevent the accumulation of ammonia in the aquarium, wherein hybridization of the 16S rDNA occurs under the following stringent conditions: hybridization in 20% to 30% formamide, 0.9 M NaCl, 0.01% sodium dodecyl sulphate, 20 mM Tris/HCl pH 7.4 at 46 °C, and washing with 120 mM to 215 mM NaCl, 5 mM EDTA, 0.01% sodium dodecyl sulphate, and 20 mM Tris/HCl at 48 °C.

21. (Previously presented) The method of claim 20, wherein the composition comprises a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:1, a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:2, a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:3, a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:4, a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:18, a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:19 and a bacterial strain with a 16S rDNA including the nucleotide sequence as set forth in SEQ ID NO:20.